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REMARKS

Claims 1-10 are presented for reconsideration without amendment in light of the following remarks and authorities.

In response to the helpful suggestion in the office action dated April 8, 2005, we enclosed on April 14, 2005 a copy of the e-mail message in question providing the sender's name and e-mail address and the date of transmission. We requested copies of the responses to this e-mail message as soon as possible. We have not received a response to this request.

It is respectfully requested that all responses to this e-mail message be made of record in the file of this application.

Despite our response furnishing the e-mail message the final action states:

36. In the second complete paragraph on page 2 of the response filed 23 November 2004, applicant requests identification of addressees of and copies of responses to an e-mail message received by the assignee regarding art pertinent to this application. Examiner is not familiar with this e-mail message. Providing the sender's name and e-mail address and the date of transmission might be helpful in identifying the message in question. P.15.

The office action states:

2. Claims 2, 3 and 7 through 10 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for an audio speaker system according to Claim 1 wherein the speaker is disposed in the rearward section of the trunk, does not reasonably provide enablement for the speaker occupying negligible useful trunk volume to cause a smaller decrease in calculated trunk volume than would occur with said one speaker mounted in the rear deck. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make the invention commensurate in scope with these claims. Specifically, the inventions of Claims 2 and 7 require a low frequency speaker of sufficiently small size and regular shape to occupy negligible space by fitting into a rear trunk corner as depicted in applicant's Figures 1, 2 and 6. This requires a low frequency speaker the approximate size and shape of a standard brick. At the time of the invention, low frequency speakers of this size and shape were not known to those of ordinary skill in the art. Evidence of this is found in Ziffer (March). In the paragraph spanning the third and fourth columns of page 48, a professional car audio installer is quoted indicating that the Bazooka bass tubes were the most compact bass speakers available at the time of the invention. In the appeal brief filed on 30 October 2003, applicant states: "it is impossible to put these large Bazooka bass

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speakers in the rear trunk corner at the rear of the vehicle". As such, applicant admits that the most compact bass speaker known to one of ordinary skill in the art at the time of the invention could not be employed as claimed. Applicant's disclosure provides no information on how to produce a low frequency speaker of the size and shape necessary to be employed as claimed. Claims 3 and 8 through 10 depend from Claims 2 or 7. As such, the claims are not enabled. In addition, Claims 3 and 8 require rear corner mounting and so claim a compactness of the speaker beyond what is required by Claims 2 and 7. Therefore the failure of enablement is greater for these claims. In order to advance prosecution to the maximum possible extent, examiner presents below prior art rejections for Claims 2 and 7 and claims depending therefrom based on the interpretation that either (1) the invention comprehends a vehicle with sufficient space between the interior trunk trim and the vehicle outer shell to contain a bass speaker or (2) applicant's disclosure admits that the occupying of negligible useful trunk volume and the smaller decrease in calculated useful trunk volume is inherent in the rear corner mounting. Pp.2-3.

37. Applicant's arguments regarding the rejection of Claims 5 and 10 under 35 USC §112, first paragraph, enablement are persuasive. P. 15

40. In the first complete paragraph on page 3 of the response, applicant traverses the rejection of Claims 2, 3 and 7 through 10 under 35 USC §112, first paragraph, enablement.

41. While, as applicant points out, this ground of rejection was not previously applied during prosecution, that omission does not constitute evidence that the claims are enabled by the original disclosure. Further, as stated above under Claim Rejections, 35 USC §112, applicant raised the issue of the impossibility of mounting even a very compact low frequency loudspeaker so as to conform to the limitations of the claims in the appeal brief filed 30 October 2003. As such, the rejection was made in the first Office action following applicant's spontaneous admission that one skilled in the art would not be able to practice the claimed invention.

42. Applicant alleges that the disclosed exemplary embodiment and associated frequency responses constitute enablement. Examiner respectfully disagrees. The exemplary embodiment disclose in Figs. 1 and 2, page 1: lines 21-26 and page 2: line 11-27 depict and describe a low-frequency speaker small enough to be tucked away in corner of a car trunk. At the time of the invention low frequency speakers of this size were not known to those of ordinary skill in the art. Evidence of this is found in Ziffer (March). In the paragraph spanning the third and fourth columns of page 48, a professional car audio installer is quoted indicating that the Bazooka bass tubes were the most compact bass speakers available at the time of the invention. Since applicant admits the impossibility of

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mounting the Bazooka bass tube so as to conform to the limitations of the claims, the claims are not enabled Applicant has presented no evidence to indicate that at the time of the invention a low frequency speaker that could be applied as described in the claims was available to one of ordinary skill in the art. As such, the rejections are maintained. Pp. 16-17.

This ground of rejection is again respectfully traversed. The parent of this application was filed on April 21, 1992, and in numerous office actions and in two appeals, including two Examiner's Answers, the sufficiency of the disclosure was never challenged. The application discloses an exemplary embodiment, and FIGS. 3 and 4 disclose actual frequency responses of the exemplary embodiment. An embodiment of the invention takes advantage of locating a speaker in the rear corner of the trunk to provide good low frequency response with a speaker that occupies negligible useful trunk volume.

The recognition that it is impossible to put these large Bazooka Bass speakers in the rear trunk corner at the rear of the vehicle hardly supports the unsupported conclusion that the "disclosure provides no information on how to produce a low frequency speaker of the size and shape necessary to be employed as claimed." The assertion, "As such, applicant admits that the most compact bass speaker known to one of ordinary skill in the art at the time of the invention could not be employed as claimed" is completely irrelevant to the statement in the following sentence, "Applicant's disclosure provides no information on how to produce a low frequency speaker of the size and shape necessary to be employed as claimed." P.3.

The specification discloses, "As shown in the rear view of FIG. 2 placement of the speaker enclosure 9 is preferably in a corner of the vehicle trunk 7 (here the left corner) occupying negligible useful trunk volume." Page 2, lines 17-20.

The specification further discloses, "While the speaker is shown mounted in an enclosure according to the preferred embodiment, the speaker could be mounted in the trunk without a separate enclosure." Page 3, lines 26-28.

The specification further explains that "the trunk as a whole acts as a natural low-pass filter." Page 2, line 26-27.

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Accordingly, withdrawal of the rejection of claims 2, 3 and 7-10 for lack of enablement is respectfully requested.

The final action states:

4. Claims 2, 3 and 7 through 10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 2 and 7 recite the limitation "said one speaker mounted in said rear deck ". There is insufficient antecedent basis for this limitation in the claim. Claim 1, from which Claim 2 depends and the antecedent portion of Claim 2 recite the limitation "at least one speaker", which encompasses one or a plurality of speakers. As such, it is unclear whether "said one speaker" refers to all speakers in a plurality, one speaker in a plurality or a single speaker that is not part of a plurality. For the purpose of this Office action, examiner assumes the recitation "said one speaker" is intended as "said at least one speaker".

5. Claims 2 and 7 recite the limitation "said one speaker mounted in said rear deck ". There is insufficient antecedent basis for this limitation in the claim. Claim 1, from which Claim 2 depends and the antecedent portion of Claim 2 recite the limitation "at least one speaker", which encompasses one or a plurality of speakers. As such, it is unclear whether "said one speaker" refers to all speakers in a plurality, one speaker in a plurality or a single speaker that is not part of a plurality. For the purpose of this Office action, examiner assumes the recitation "said one speaker" is intended as "said at least one speaker". P. 4.

6. Claims 2 and 3 claim a speaker system "wherein said at least one speaker is disposed in a rearward (section of the trunk occupying negligible useful trunk volume to cause a smaller decrease in calculated trunk volume than would occur with said [at least] one speaker mounted in said rear deck." Applicant states in the disclosure that the "reference to negligible useful trunk volume Means that the [speaker] enclosure portion in the useful trunk volume is a small percentage of the useful trunk volume" (page.3, lines 8-10). As is clear from applicant's Fig. 6, the amount of useful trunk volume occupied by the speaker depends on the size and shape of the vehicle trunk. Applicant has depicted a large trunk with significant volume between the vehicle shell and the cosmetic trim resulting in only a small part of the speaker occupying useful volume. In a vehicle with a smaller trunk and less volume between the vehicle shell and the cosmetic trim, a larger portion of the speaker would occupy useful volume. Applicant claims the invention; as a speaker system. As such, the limitations of the claimed invention cannot be made clear by reference to a vehicle of uncertain configuration. The claim could read on a particular speaker system when it is installed in one vehicle, but not on the same speaker system installed in a different vehicle. Similarly, whether a speaker disposed in a rearward section of the trunk would "cause a smaller decrease in calculated trunk volume than would occur with said one

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speaker mounted in said rear deck" depends on the configuration of the vehicle. Since the configuration of the vehicle is not defined beyond a general recitation of vehicle elements (ie., passenger compartment, spare tire compartment, trunk, trunk floor, dividing portion and rear deck), the claim is indefinite. In order to advance prosecution to the maximum possible extent, examiner presents below prior art rejections for Claims 2 and 7 and claims depending therefrom based on the interpretation that either (1) the invention comprehends a vehicle with sufficient space between the interior trunk trim and the vehicle outer shell to contain a bass speaker or (2) applicant's disclosure admits that the occupying of negligible useful trunk volume and the smaller decrease in calculated useful trunk volume is inherent in the rear corner mounting. This second interpretation is further supported by the fact that the indefinite claims do not limit the rear deck mounting orientation and position of the speakers) that serve as a basis for comparison for the claimed configuration. As such, the prior art rear corner mounting configuration need only be more space efficient than the least space efficient possible rear shelf mounting of the same speaker(s) (e.g., extending rearward along the center line of the car) to meet the claim.

7. Claim 3 is indefinite due to dependence on Claim 2.

8. Claims 8 through 10 are indefinite due to dependence from Claim 7.
Pp. 3-5.

43. In the last complete paragraph on page 4 through the third complete paragraph on page 5 of the response, applicant traverses the rejection of Claims 2, 3 and 7 through 10 under 35 USC §112, second paragraph, indefiniteness.

44. Applicant alleges that the specification makes clear the limitations of the claims. Examiner respectfully disagrees. The indefiniteness of Claims 2 and 7 due to lack of antecedent basis stems from the recitation "said one speaker" following the recitations "at least one speaker" and "said at least one speaker". Because the recitation "at least one speaker" comprehends a plurality of speakers, the subsequent recitation of "said one speaker" is indefinite since it does not indicate to which one of the plurality it refers. Since the specification makes no reference to an embodiment with more than one speaker, it cannot resolve the indefiniteness.

45. Further indefiniteness in Claims 2 and 7 stems from the dependence of the claimed invention on the dimensions of the vehicle in which it is installed, as shown above under *Claim Rejections, 35 USC §112*. Because the claim could read on a speaker system installed in one vehicle but not on the same speaker system installed in another vehicle, the claim is indefinite. The specification does not render the claim definite since the descriptions and depictions of the vehicle therein are vague and generic. As such, the rejections are maintained. Pp. 17-18.

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This ground of rejection is respectfully traversed and not understood. Claims 2 and 7 add the limitations, "wherein said at least one speaker is disposed in a rearward section of the trunk occupying negligible useful truck volume to cause a smaller decrease in calculated trunk volume than would occur with said one speaker mounted in said rear deck."

The specification fully explains this limitation in the two paragraphs on page two, beginning at line 7:

With reference now to the drawings and more particularly FIG. 1, a speaker enclosure 9 is placed in a rearward section of the trunk 7 of the vehicle 1. The speaker enclosure 9 is not, however, mounted to the rear deck 3 nor are speaker holes provided in the rear deck. As shown in the rear view of FIG. 2, placement of the speaker enclosure 9 is preferably in a corner of the vehicle trunk 7 (here the left corner).

The speaker configuration of the invention has numerous advantages over the prior art. Since the invention does not require holes to be cut in the rear deck, transmission of road noise into the passenger compartment is reduced. The package shelf does not, however, affect low frequencies (+/- 1dB), and the trunk as a whole acts as a natural low-pass filter. Also, because of the way auto manufacturers calculate trunk volume, the enclosure in the corner of the trunk results in a smaller decrease in calculated trunk volume than do speakers mounted in the rear deck.

In the decision in the parent application reversing the section 112 rejection of claims the Board said:

As a general rule, a claim must set out and circumscribe a particular area with a reasonable degree of precision and particularity when read in light of the disclosure as it would be by the artisan. In re Moore, 439 F.2d 1232, 1235, 169 USPQ 236, 238 (CCPA 1971). Acceptability of the claim language depends on whether one of ordinary skill in the art would understand what is claimed in light of the specification. Seattle Box Co. v. Industrial Crating & Packing, Inc., 731 F.2d 818, 826, 221 USPQ 568, 574 (Fed. Cir. 1984).

The rejection of claim 1 seems to recognize that "trunk rear" either means the portion of the trunk closest to the front of the vehicle or the portion of the trunk closest to the rear of the vehicle. The rejection insists that the definition must appear within the claim. The specification of the application and the drawings make it reasonably clear that the rear of the trunk is used in the same sense as the rear of the vehicle. The artisan having read the specification would readily understand that the trunk rear refers to a portion of the trunk located near the rear of the vehicle. In our view, when claim 1 is interpreted in light of the

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specification, there can be no doubt as to what is intended by the phrase "trunk rear." Therefore, we do not sustain the rejection of claim 1 as being vague and indefinite.

With respect to claim 2, the examiner provides no additional analysis in support of the position that the term "negligible useful volume" is "vague and indefinite." The examiner has not given any reason why the objected to phrase is considered to be vague and indefinite. The specification describes what is meant by useful trunk volume, and the artisan should understand what is included within the recitation of occupying a negligible amount of this useful trunk space. We will not sustain the rejection of claim 2 as being vague and indefinite.

In summary, we have not sustained any of the rejections of claims 1-4 with respect to 35 U.S.C. § 112, second paragraph, so that the rejection of the claims under section 112 is reversed. Pp. 5-6.

Accordingly, withdrawal of the rejection of claims 2, 3 and 7-10 as indefinite as failing to particularly point out and distinctly claim subject matter which applicant regards as the invention is respectfully requested.

The final action states:

10. Claims 1 through 4 are rejected under 35 U.S.C. 102(a) as being anticipated by Ziffer (May) (Car Audio and Electronics, May 1991).

11. Claim 1 claims an audio speaker system for a vehicle. Ziffer (May) discloses a "full-blown sound system" (page 39, 2nd paragraph) including tweeters and woofers (i.e., an audio speaker system) (page 41, photos) for a white 1990 Mazda Protege (i.e., a vehicle) (page 39, 22 paragraph). As is visible in the lower photograph on page 40, the vehicle disclosed has a passenger compartment (visible through the rear window seen between the raised trunk lid and the rear trunk lip), a spare tire compartment (visible around the spare tire), a trunk (page 40, photo caption) with a trunk floor (page 40, 1st column, 1st full paragraph), a dividing portion (visible in a closed position in upper photograph on page 40 and in an open position in the lower photograph on page 40) and a rear deck (page 42, lower photograph and associated caption) with the dividing portion and rear deck separating the trunk from the passenger compartment. Ziffer (May) further discloses the woofers (i.e., at least one low frequency speaker) disposed within the trunk of the vehicle (page 40, paragraph spanning 3rd and 4th columns and 2nd complete paragraph in 4th column) at the trunk rear in a location spaced from the passenger compartment by the portion of the trunk extending to the front of the vehicle (top photograph on page 41 shows the portion of the trunk extending to the front of the vehicle to the right of the woofer grille). The woofers disclosed by Ziffer (May) are clear of the rear deck (lower photograph on page 41 shows clearance between woofers and rear deck), above the trunk floor (top photograph

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on page 41 shows the disposition of the woofer above the trunk floor) and outside the spare tire compartment (lower photograph on page 40 shows woofers outside the spare tire compartment).

12. Regarding Claim 2, Ziffer (May) further discloses woofers disposed in a rearward section of the trunk (top photograph on page 41 shows the portion of the trunk extending to the front of the vehicle to the right of the woofer grille) and flush mounted in the trunk walls (i.e., occupying no useful trunk volume) (page 40, lower photograph) and hence causing a smaller decrease in calculated trunk volume than would occur with the speakers mounted in the rear deck.

13. Regarding Claim 3, Ziffer (May) further discloses woofers disposed in a rear trunk corners (page 40, both photographs).

14. Regarding Claim 4, Ziffer (May) further discloses creation of woofer enclosures with fiberglass back walls built to conform to the shape of the car (page 40, paragraph spanning 3'd and 4th columns). Pp. 5-6.

46. In the last complete paragraph on page 5 through the second complete paragraph on page 6 of the response, applicant traverses the rejection of Claims 1 through 4 as being anticipated by Ziffer (May) under 35 USC §102(a).

47. Applicant alleges that Ziffer (May) fails to disclose the speakers occupying negligible useful trunk volume as claimed. Examiner respectfully disagrees. Applicant's disclosure admits that useful trunk volume does not include "volumes that are ... behind cosmetic panels identified as cosmetic trim in the top view of a trunk in FIG. 5". The fronts of the enclosures disclosed in Ziffer (May) constitute such cosmetic panels and/or trim and, as such, the space behind them is not useful trunk volume, but rather constitutes "negligible space" as defined by applicant's disclosure. It can make no difference to the patentability of the speaker system whether the car was produced by the factory with a certain cosmetic trim configuration, or was subsequently modified to achieve that configuration. As such, the rejections are maintained. P. 18

This ground of rejection is respectfully traversed.

We rely on the authorities set forth on pages 4 and 5 of our brief that was filed on October 30, 2003. Claims 1 and 2 call for the at least one low frequency speaker disposed within the trunk of the vehicle at the trunk rear in a location spaced from the passenger compartment by the portion of the trunk extending to the front of the vehicle such that the at least one speaker is clear of the rear deck above the trunk floor and outside the spare tire compartment, claim 2 adding that the at least one speaker is disposed in a rearward section of the trunk occupying

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negligible useful trunk volume to cause a smaller decrease in calculated trunk volume that would occur with said one speaker mounted in said rear deck. The reference states:

Since the trunk is usually the main repository for audio components, some installations leave little room for luggage, much less a spare tire. Baker managed to keep his spare-and enough room for luggage-by constructing a false floor in which he mounted components. He also retained use of the fold down rear seat by not mounting hardware on the rear wall of the trunk. He gave up only one foot on each side and on the bottom of the trunk.

...
A subwoofer box has been positioned in each of the trunk's side walls. To maximize the volume of the enclosures (one cubic foot on the left side, slightly more on the other), their fiberglass back walls were built to conform to the shape of the car. Car Audio and Electronic May 1991, P.40.

The picture on that page clearly shows these speakers located in the side of the trunk between the rear of the trunk and the front, and giving up "one foot one each side" and on the bottom of the trunk with said woofer boxes occupying one cubic foot on the left side and slightly more on the other hardly discloses a speaker disposed in a rearward section of the trunk occupying negligible useful trunk volume to cause a smaller decrease in calculated trunk volume than would occur with said one speaker mounted in said rear deck.

Accordingly, withdrawal of the rejection of claims 1-4 as anticipated by the reference is respectfully requested. If this ground of rejection were repeated, we respectfully requested the Examiner to quote verbatim the language in the reference regarded as corresponding to each limitation in each of these rejected claims. The Examiner did not and cannot comply with this request. If this ground of rejection is again repeated the Examiner is again respectfully requested to quote verbatim the language in the reference regarded as corresponding to each limitation in each of these rejected claims.

The final action states:

15. Claims 1 and 4 through 6 are rejected under 35 U.S.C. 102(b) as being anticipated by Ziffer (March) (Car Audio and Electronics, March 1991). These rejections rely on the embodiment depicted in the bottom photograph on page 48 in Ziffer (March) showing the bass tubes placed some distance rearward of the trunk front wall.

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16. Claim 1 claims an audio speaker system for a vehicle. Ziffer (March) discloses bass tubes (i.e., an audio speaker system) (page 48, bottom photo) for a Volvo 740 Turbo (i.e., a vehicle) (page 47, 14 paragraph). As is visible in the photograph on page 47, the vehicle disclosed has a passenger compartment (visible through the side windows), a spare tire compartment (page 48, top photo shows gap in carpet between spare tire compartment lid and trunk floor), a trunk (page 48, top photo caption) with a trunk floor (page 48, top photo), a trunk front wall (i.e., dividing portion) (page 48, last paragraph) and a rear shelf (i.e., rear deck) (while not clearly depicted or described in Ziffer (March), evidence of the inherency of a rear shelf in a 1990 Volvo 740 Turbo sedan is found in Justin: "There was no factory rear shelf speaker in this car, so I had to saw out holes in the back"), with the dividing portion and rear shelf separating the trunk from the passenger compartment. Ziffer (March) further discloses the bass tubes (i.e., at least one low frequency speaker) disposed within the trunk of the vehicle (page 48, lowest photograph) at the trunk rear in a location spaced from the passenger compartment by the portion of the trunk extending to the front of the vehicle (i.e., toward the upper right corner of the photograph). The bass tubes disclosed by Ziffer (March) are clear of the rear deck, above the trunk floor and outside the spare tire compartment (bottom photograph on page 48).

17. Regarding Claim 4, Ziffer (March) further discloses bass tube enclosures (page 48, top photo).

18. Regarding Claim 5, applicant discloses that the front seat frequency response hole and rear seat frequency response peak are the result of using deck mounted speakers (page 3, lines 13-25). As shown below apropos of Claim 6, the vehicle disclosed in Ziffer (March) does not use deck mounted speakers or have rear deck speaker holes. As such, it is inherently characterized by freedom from the undesirable front seat frequency response hole and rear seat frequency response peak.

19. Regarding Claim 6, the rear shelf (i.e., rear deck) of the 1990 Volvo 740 Turbo sedan has no speaker holes in the rear deck. Evidence of the rear shelf without speaker holes in a 1990 Volvo 740 Turbo sedan is found in Justin: "There was no factory rear shelf speaker in this car, so I had to saw out holes in the back." Ziffer (March) further discloses that a design consideration was to not cut holes in the vehicle (page 48, paragraph spanning 3r and 4e1 columns) and that the vehicle was purchased without a factory sound system (paragraph spanning pages 47 and 48). The Ziffer article is directed to a complete description of the vehicle sound system and makes no mention of rear shelf speakers or rear shelf speaker holes. As such, it is clear that the rear deck in the vehicle disclosed in Ziffer (March) is free of speaker holes. Pp. 7-9.

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48. In the first complete paragraph on page 7 of the response, applicant traverses the rejection of Claims 1 and 4 through 6 as being anticipated by Ziffer (March) under 35 USC §102(b).

49. Applicant alleges that Ziffer (March) fails to disclose the vehicle is characterized by a front seat frequency response and a rear seat frequency response constructed and arranged to be free of an undesirable peak in the rear seat frequency response of said vehicle between 80-100 Hz and free of an undesirable hole between 60-80 Hz in the front seat frequency response of the vehicle. Examiner respectfully disagrees. As shown above, applicant has admitted that the claimed frequency response characteristics are inherent in a vehicle where the low frequency speaker is trunk-mounted and the rear deck is free of holes. As shown above under *Claim Rejections, 35 USC §102*, the reference discloses these elements and, therefore, meets the claims. As such, the rejections are maintained.

These grounds of rejection are respectively traversed. This reference is no more pertinent than the reference we distinguished in point I of the brief filed October 30, 2003. The present reference also discloses Bazooka bass tubes and shows the large BAZOOKA tubes extending from front to rear in the trunk. Claims 4-6 are dependant upon and include this limitation, and nothing in the reference remotely discloses that the vehicle is characterized by a front seat frequency response and rear seat frequency response constructed and arranged to be free of an undesirable peak in the rear seat frequency response of the vehicle between 80-100HZ and free of an undesirable hole between 60-80HZ in the front seat frequency response of the vehicle. Accordingly, withdrawal of the rejection of claims 1 and 4-6 as anticipated by this reference is respectfully requested.

If this ground of rejection were repeated, the Examiner was respectfully requested to quote verbatim the language in the reference regarded as corresponding to each element in these rejected claims. The Examiner did not and can not comply with this request. If this ground of rejection is again repeated, the Examiner is respectfully requested to quote verbatim the language in the reference regarded as corresponding to each limitation in these rejected claims.

The final action states:

21. Claims 2 through 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ziffer (May) in view of Bazooka.

22. Regarding Claim 2, as stated above apropos of Claim 1, Ziffer (May) anticipates all elements of that claim. Therefore Ziffer (May) is shown to

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anticipate all elements of Claim 2 except the at least one speaker being disposed in a rearward section of the trunk occupying negligible useful trunk volume to cause a smaller decrease in calculated trunk volume than would occur with said [at least] one speaker mounted in said rear deck. Bazooka discloses a woofer configuration (third example) for use in a vehicle similar to the one disclosed in Ziffer (May) in which the woofers are disposed adjacent to and parallel to the sides of the trunk and "directed to the rearmost corner of the trunk". Further, it is clear from the first and second example of Bazooka that the woofer is intended to be disposed "3-4 inches from the wall the woofer is facing" (i.e., the rear of the trunk). As such, Bazooka discloses the woofer disposed in a rearward section of trunk. The disposition adjacent and parallel to the side of the trunk and 3-4 inches the rear of the trunk places the woofer in a rear trunk corner of the vehicle. It would have been obvious to one skilled in the art at the time of the invention to apply the woofer configuration taught by Bazooka to the vehicle sound system taught by Ziffer (May) for the purpose of reducing installation time, effort and cost by utilizing a ready-made subwoofer instead of fabricating one from raw materials. Applicant states in the disclosure that "placement of the speaker enclosure is preferably in a corner of the vehicle trunk occupying negligible useful trunk volume" (page 2, lines 17-20) and "because of the way auto manufacturers calculate useful trunk volume, the enclosure in the corner of the trunk results in a smaller decrease in calculated useful trunk volume than do speakers mounted in the rear deck" (page 2, lines 27-31). As such, applicant admits that the occupying of negligible useful trunk volume and the smaller decrease in calculated useful trunk volume is inherent in the rear corner mounting. As such, the combination of Ziffer (May) and Bazooka makes obvious all elements of Claim 2.

23. Regarding Claim 3, as shown above apropos of Claim 2, the combination of Ziffer (May) and Bazooka makes obvious the speaker located in a rear trunk corner at the rear of the vehicle.

24. Regarding Claim 4, Bazooka further discloses the woofers mounted in enclosures (top and bottom illustrations). Pp. 9-10.

50. In the second complete paragraph on page 7 through the last complete paragraph on page 9 of the response, applicant traverses the rejection of Claims 2 through 4 as being obvious in view of Ziffer (May) and Bazooka under 35 USC §103(a).

51. Applicant alleges that the "secondary reference [i.e., Bazooka] fails to disclose the at least one speaker being disposed in rearward section of the trunk occupying negligible useful volume to cause a smaller decrease in calculated trunk volume than would occur with the one speaker mounted in the rear deck". Examiner respectfully disagrees. The depiction of sedan mounting in the Bazooka reference in light of the statement in that reference that the speaker should be

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placed 3-4 inches from the wall it is facing meet the limitation "the at least one speaker being disposed in rearward section of the trunk". As stated above, in maintaining that the claim is not rendered indefinite by the variability of vehicle configuration, applicant admits the inherency of meeting the limitation "occupying negligible useful volume to cause a smaller decrease in calculated trunk volume than would occur with the one speaker mounted in the rear deck" in the rear corner disposition of the speakers disclosed by the Bazooka reference. As such, the rejections are maintained. P.19.

This ground of rejection is respectfully traversed. We rely on the authorities set forth on pages 8 and 9 of the response transmitted November 23, 2004, to the office action of August 23, 2004. As set forth above, the primary reference does not anticipate each element in claim 1. Furthermore, as noted in point one of the brief filed October 30, 2003, which the Examiner found persuasive, the secondary reference fails to disclose the at least one speaker being disposed in rearward section of the trunk occupying negligible useful volume to cause a smaller decrease in calculated trunk volume than would occur with the one speaker mounted in the rear deck. Accordingly, it is impossible to combine the primary and secondary references to meet claims 2-4. "Moreover, we observe that even if these references were combined in the manner proposed by the examiner, that which is set forth in appellant's claims . . . would not result." *Ex parte Bogar*, slip op. p.7 (BPA&I Appeal No. 87-2462, October 27, 1989). "Even if we were to agree with the examiner that it would have been obvious to combine the reference teachings in the manner proposed, the resulting package still would not comprise zipper closure material that terminates short of the end of the one edge of the product containing area, as now claimed." *Ex parte Schwarz*, slip op. p.5 (BPA&I Appeal No. 92-2629 October 28, 1992). "Although we find nothing before us indicating why it would be desired to combine the references in the manner urged by the examiner, it is clear to us that such a modification by itself would not result in that which is set forth in the claims." *Ex Parte Kusko*, 215 U.S.P.Q. 972, 974 (BPA&I 1981). That it is impossible to combine the primary and secondary references to meet the limitations of claims 2-4 is reason enough for withdrawing the rejection of them on this combination of references.

If this ground of rejection were repeated, the Examiner was respectfully requested to quote verbatim the language in each reference regarded as corresponding to each limitation in

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each of these rejected claims, and quote verbatim the language in the references regarded as suggesting the desirability of combining what is there disclosed to meet the terms of these claims. The Examiner did not and can not comply with this request. If this ground of rejection is again repeated, the Examiner is again respectfully requested to quote verbatim the language in each reference regarded as corresponding to each limitation in each of these rejected claims and quote verbatim the language in the references regarded as suggesting the desirability of combining what is there disclosed to meet the terms of these claims.

The final action states:

25. Claims 1 through 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ziffer (March) in view of Bazooka. These rejections rely on the embodiment depicted in the top photograph on page 48 in Ziffer (March) showing the bass tubes placed near the trunk front wall.

26. Claim 1 claims an audio speaker system for a vehicle. Ziffer (March) discloses bass tubes (i.e., an audio speaker system) (page 48, top photo) for a Volvo 740 Turbo (i.e., a vehicle) (page 47, 1 g paragraph). As is visible in the photograph on page 47, the vehicle disclosed has a passenger compartment (visible through the side windows), a spare tire compartment (page 48, top photo shows gap in carpet between spare tire compartment lid and trunk floor), a trunk (page 48, top photo caption) with a trunk floor (page 48, top photo), a trunk front wall (i.e., dividing portion) (page 48, last paragraph) and a rear shelf (i.e., rear deck) (while not clearly depicted or described in Ziffer (March), evidence of the inherency of a rear shelf in a 1990 Volvo 740 Turbo sedan is found in Justin: "There was no factory rear shelf speaker in this car, so I had to saw out holes in the back"), with the dividing portion and rear shelf separating the trunk from the passenger compartment. Ziffer (March) further discloses the bass tubes (i.e., at least one low frequency speaker) disposed within the trunk of the vehicle (page 48, top photograph). The bass tubes disclosed by Ziffer (March) are above the trunk floor and outside the spare tire compartment (top photograph on page 48). Therefore Ziffer (March) is shown to anticipate all elements of Claim 1 except the speaker(s) disposed at the trunk rear in a location spaced from the passenger compartment by the portion of the trunk extending to the front of the vehicle such that the speaker(s) is/are clear of the rear deck. Bazooka discloses a woofer configuration (third example) for use in a vehicle similar to the one disclosed in Ziffer (March) in which the woofers are disposed adjacent to and parallel to the sides of the trunk and "directed to the rearmost corner of the trunk". Further, it is clear from the first and second example of Bazooka that the woofer is intended to be disposed "3-4 inches from the wall the woofer is facing" (i.e., the rear of the trunk). As such, Bazooka discloses the woofer disposed in a rearward section of

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the trunk. The disposition adjacent and parallel to the side of the trunk and 3-4 inches the rear of the trunk places the woofer in a rear trunk corner of the vehicle (i.e., at the trunk rear in a location spaced from the passenger compartment by the portion of the trunk extending to the front of the vehicle such that the speaker(s) is/are clear of the rear deck). The Bazooka reference is produced by the manufacturer of the bass tubes disclosed in Ziffer (March) and represents rear corner mounting as the preferred configuration for a sedan. It would have been obvious to one skilled in the art at the time of the invention to apply the woofer configuration taught by Bazooka to the vehicle sound system taught by Ziffer (March) for the purpose of ensuring proper function of the bass tube by installing according to the manufacturer's recommendation.

27. Regarding Claim 2, as stated above apropos of Claim 1, the combination of Ziffer (March) and Bazooka makes obvious all elements of that claim. Therefore the combination is shown to make obvious all elements of Claim 2 except the at least one speaker being disposed in a rearward section of the trunk occupying negligible useful trunk volume to cause a smaller decrease in calculated-trunk volume than would occur with said [at least] one speaker mounted in said rear deck. As shown above apropos of Claim 1, the combination makes obvious rear corner mounting of the bass tubes. Applicant states in the disclosure that "placement of the speaker enclosure is preferably in a corner of the vehicle trunk occupying negligible useful trunk volume" (page 2, lines 17-20) and "because of the way auto manufacturers calculate useful trunk volume, tie enclosure in the corner of the trunk results in a smaller decrease in calculated useful trunk volume than do speakers mounted in the rear deck" (page 2, lines 27-31). As such, applicant admits that the occupying of negligible useful trunk volume and the smaller decrease in calculated useful trunk volume is inherent in the rear corner mounting. As such, the combination of Ziffer (March) and Bazooka makes obvious all elements of Claim 2.

28. Regarding Claim 3, as stated above apropos of Claim 2, the combination of Ziffer (March) and Bazooka makes obvious all elements of that claim. Further, as shown above apropos of Claim 1, the combination makes obvious rear corner mounting of the bass tubes. As such, the combination of Ziffer (March) and Bazooka makes obvious all elements of Claim 3.

29. Regarding Claim 4, Bazooka further discloses the woofers mounted in enclosures (top and bottom illustrations).

30. Regarding Claim 5, applicant discloses that the front seat frequency response hole and rear seat frequency response peak are the result of using deck-mounted speakers (page 3, lines 13-25). As shown below apropos of Claim 6, the vehicle disclosed in Ziffer (March) does not use deck mounted speakers and does not have rear deck speaker holes. Therefore, it is inherently characterized by freedom from the undesirable front seat frequency response hole and rear seat

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frequency response peak. As such, the combination of Ziffer (March) and Bazooka makes obvious all elements of Claim 5.

31. Regarding Claim 6, the rear shelf (i.e., rear deck) of the 1990 Volvo 740 Turbo sedan has no speaker holes in the rear deck. Evidence of the rear shelf without speaker holes in a 1990 Volvo 740 Turbo sedan is found in Justin: "There was no factory rear shelf speaker in this car, so I had to saw out holes in the back." Ziffer (March) further discloses that a design consideration was to not cut holes in the vehicle (page 48, paragraph spanning 3" and 0 columns) and that the vehicle was purchased without a factory sound system (paragraph spanning pages 47 and 48). The Ziffer article is directed to a complete description of the vehicle sound system and makes no mention of rear shelf speakers or rear shelf speaker holes. Therefore, it is clear that the rear deck in the vehicle disclosed in Ziffer (March) is free of speaker holes. As such, the combination of Ziffer (March) and Bazooka makes obvious all elements of Claim 6.

32. Regarding Claim 7, as stated above apropos of Claim 6, the combination of Ziffer (March) and Bazooka makes obvious all elements of that claim. Therefore the combination is shown to make obvious all elements of Claim 7 except the at least one speaker being disposed in a rearward section of the trunk occupying negligible useful trunk volume to cause a smaller decrease in calculated trunk volume than would occur with said [at least] one speaker mounted in said rear deck. As shown above apropos of Claim 1, the combination makes obvious rear corner mounting of the bass tubes. Applicant states in the disclosure that "placement of the speaker enclosure is preferably in a corner of the vehicle trunk occupying negligible useful trunk volume" (page 2, lines 17-20) and "because of the way auto manufacturers calculate useful trunk volume, the enclosure in the corner of the trunk results in a smaller decrease in calculated useful trunk volume than do speakers mounted in the rear deck" (page 2, lines 27-31). As such, applicants admits that the occupying of negligible useful trunk volume and the smaller decrease in calculated useful trunk volume is inherent in the rear corner mounting. As such, the combination of Ziffer (March) and Bazooka makes obvious all elements of Claim 7.

33. Regarding Claim 8, as stated above apropos of Claim 7, the combination of Ziffer (March) and Bazooka makes obvious all elements of that claim. Further, as shown above apropos of Claim 1, the combination makes obvious rear corner mounting of the bass tubes. As such, the combination of Ziffer (March) and Bazooka makes obvious all elements of Claim 8.

34. Regarding Claim 9, Bazooka further discloses the woofers mounted in enclosures (top and bottom illustrations).

35. Regarding Claim 10, applicant discloses that the front seat frequency response hole and rear seat frequency response peak are the result of using deck mounted speakers (page 3, lines 13-25). As shown above apropos of Claim 6, the vehicle disclosed in Ziffer (March) does not use deck mounted speakers or have

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rear deck speaker holes. Therefore, it is inherently characterized by freedom from the undesirable front seat frequency response hole and rear seat frequency response peak. As such, the combination of Ziffer (March) and Bazooka makes obvious all elements of Claim 10. Pp.11-15.

52. In the last complete paragraph on page 10 of the response, applicant traverses the rejection of Claims 1 through 10 as being obvious in view of Ziffer (March) and Bazooka under 35 USC §103(a).

53. Applicant's arguments are limited to the assertion that Ziffer (March) fails to anticipate Claim 1. Examiner respectfully disagrees for reasons stated above. Pp. 19-20.

This ground of rejection is respectfully traversed. We have shown above that the primary reference fails to anticipate claim 1, and nothing in the secondary reference discloses limitations in claims 1-10. It is impossible to combine these references to meet the limitations of claims 1-10.

Should this ground of rejection be repeated, the Examiner was respectfully requested to quote verbatim the language in each reference regarded as corresponding to each element in these rejected claims and quote verbatim the language in the references regarded as suggesting the desirability of combining what is there disclosed to meet the terms of these claims. The Examiner did not and can not comply with this request. Accordingly, withdrawal of the rejection of claims 1-10 as unpatentable over the primary reference in view of the secondary reference is respectfully requested. Should this ground of rejection be repeated, the Examiner is respectfully requested to quote verbatim the language in each reference regarded as corresponding to each limitation in these rejected claims and quote verbatim the language in the references regarded as suggesting the desirability of combining what is there disclosed to meet the limitations of these claims.

In view of the forgoing authorities and those previously cited, remarks and inability of the prior art alone or in combination, to anticipate, suggest or make obvious the subject matter as a whole of the invention disclosed and claimed in this application, all the claims are submitted to be in a condition for allowance and notice thereof is respectfully requested. Should the Examiner believe this application is not in a condition for allowance, the Examiner is

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respectfully requested to telephone the undersigned attorney at 617-521-7014 to discuss what additional steps the Examiner believes are necessary to place the application in a condition for allowance.

Respectfully submitted,
FISH & RICHARDSON P.C.

Date: JUN 13 2005

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